

REMARKS

In the Office Action dated May 29, 2007, all claims stand rejected as being obvious over the cited art. The previous rejection over the Ladeur reference has been replaced by the current rejection over U.S. 4,888,228 to Sidles, which was previously cited by Examiner Matzek in the very first office action issued on March 28, 2005. The rejection based on Sidles, among others, was withdrawn in the second office action issued on September 28, 2005, in view of Applicant's arguments and amendments when the independent claims in the present application were broader than the current independent claims. Applicant submits that the finality of the current office action is improper, because no new issue has been raised.

Independent claims 56-59 are amended to further clarify that the top surface of the fibrous face layer is fibrous, *i.e.*, substantially free of adhesive. Support for this clarifying amendment can be found in the Summary section of the present invention, *i.e.*, page 3, lines 14-15. ("The adhesive layer is not allowed to penetrate into the top portion of the face layer. Therefore, the top of the face layer maintains its textile feel.") New claim 93 has been added, and recites that some of the legs can be needle-punched into the backing layer. Support for this claim can be found in Figures 12-13 and related texts in the specification.

Among the pending claims, claims 56, 57, 58, 59, 64 and 91 are the independent claims. Claims 56, 58 and 59 are rejected as being anticipated by Sidles. Claims 64 and 91 are being rejected as being obvious by Sidles, and claim 57 is being rejected as being obvious over Sidles and Ladeur. Hence, Sidles forms the basis or the principal basis of all the rejections. Specifically, Examiner Matzek states in paragraph 2 on page 3 of the office action that

The figures of Sidles illustrate the top portion of the fibrous face layer as being embedded in polymeric adhesive. However, Sidles teaches that only at least one side needs to be coated with binder and that when a plurality of plies are stacked together there is binder between layers. Therefore, the top portion of the fibrous layer may be substantially free of adhesive.

(emphasis is ours.)

Applicant respectfully submits that a hypothesis that a feature "may be" present in a prior art reference is not evidence and can never be evidence that an examiner can rely on to

support a rejection. For this reason alone, the rejections of all the claims must fail.

Furthermore, this hypothesis is false in view of the literal teaching of Sidles. In the office action, the Examiner interprets that embedded lower ply 20 is the backing layer to embedded top ply 15, and that embedded substrates 24, 26 are the top face layer. Loops, fibers 30, 32, 34 are the legs. As quoted above, the Examiner hypothesizes that when Sidles discusses having to coat only one side with binder there is a possibility that the top face layer of Sidles can be adhesive-free, despite that the drawings depict the contrary conclusion.

Sidles is particularly concerned about getting all of the fibers 30, which include fiber tips 36, tufts 34 and loops 32 (col. 2, lines 15-45), substantially impregnated. Sidles specifically states that “the resulting matrix substantially impregnates the interstices between the fibers of the opposing plies as well as the substrates.” (col. 2, lines 5-8) The term “substantially impregnated” is defined on col. 2, line 68 to col. 3, line 4 to mean that “the matrix will substantially fill the interstices between the fibers.” These statements can lead to only one conclusion, *i.e.*, all the fibers in the Sidles composite is covered with adhesive.

When discussing coating the substrate on only one side, Sidles explains that when this occurs the interstices between the plies and around all the fibers are saturated (col. 3, lines 46-58 and col. 4, lines 36-49). When only one side is coated, this is the side of one ply that faces the opposing ply. This one coated side becomes an internal boundary of a multi-ply composite. It does not mean that the top surface might be left uncoated with resin. Similarly, when two sides are coated, Sidles means that opposite sides of two adjacent plies, and not the top and bottom surfaces of the composite (col. 3, lines 48-51).

Hence, contrary to the Examiner’s hypothesis, Sidles does not teach a composite with a fibrous face layer.

All the independent claims require that the face layer is a fibrous layer, *i.e.*, the very top layer of the composite is fibrous. Certainly, that has been the interpretation in this long prosecution and during the multiple personal interviews conducted in this case. In the event that there exists any ambiguity, Applicant has amended independent claim 56-59 to state that “the top surface of the fibrous face layer is substantially free of adhesive.” Independent claims 64 and 91 already have such a term. Hence, all the independent claims, as well as the dependent claims, are patentable over Sidles.

The Examiner is invited to review the references listed on the attached IDS. Particularly to U.S. 3,245,854 to Etchison et al, which was recently discovered by the Applicant, and U.S. 3,819,465 to Parsons et al, which was recently cited in commonly owned patent application serial no. 11/284,377. Both Etchison and Parsons are related to needle-punched composites and thus are related only to independent claims 56 and 64.

Claim 56 is patentable over Etchison, because the claim requires that “at least some of the needle punched legs are bonded to the backing layer” and that “the top surface of the fibrous face layer is substantially free of adhesive,” *inter alia*. As shown in Figures 4-7 some of the legs are punched through a bottom multi-ply composite, which could be construed as a backing layer. However, no bonding has yet to occur in this inchoate or intermediate precursor, since the legs are only punched through. When bonding occurs, all the thermoplastic layers disappear and all the stratum distinction disappeared. The entire composite is uniform with the thermoplastic evenly distributed throughout. (col. 2, lines 36-3, and col. 3, lines 9-12). Hence, the legs in Etchison are not bonded to a backing layer/strata in its final form, and in its final form the top surface of the composite is not free of adhesive, as claimed.

Claim 56 is patentable over Parsons, because the claim requires that “at least some of the needle punched legs are bonded to the backing layer,” *inter alia*. Parsons only discloses one embodiment with a backing layer in Figures 13- 14, which shows a top fibrous layer 71, a middle plastic grid layer 70 and a bottom fibrous layer. (col. 7, line 61 to col. 8, lines 22.) The two fibrous layers are needle-punched through the plastic grid layer, as shown. The legs of the top fibrous layer are not bonded to the backing layer, as claimed.

Claim 64 is patentable over Etchison and Parsons, because this claim requires that “the adhesive layer penetrates into about $\frac{1}{4}$ to about $\frac{3}{4}$ of the fibrous face layer, and wherein the top surface of the fibrous face layer is substantially free of adhesive,” *inter alia*. Etchison teaches that the adhesive penetrates throughout the composite, including the top surface of the fibrous face layer. (col. 2, lines 36-3, and col. 3, lines 9-12.) Parsons, on the other hand, clearly admonishes that “it should be noted that the sheet 12 is merely fixed or fastened to the facing fibers in the web 11 and that the plastic material has not melted to the extent that it permeates the major portion of the web 11.” (col. 5, lines 6-10.)

Applicant submits that all claims are now in condition for allowance, early notice of

which is respectfully requested. An RCE and fees are submitted herewith. One claim has been added, but the total number of claims remains lower or equal to than the highest number previously paid. No other fees are believed due for the submission of this amendment. Should any additional fees in fact be due including fees for extension of time, please charge such fees to Deposit Account No. 50-1980.

Respectfully submitted,

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Enclosure:

RCE and fees.